

Declassified in Part - Sanitized Copy Approved for Release 2012/11/15 : CIA-RDP79B00873A002900020028-2

25X1

TO:

ROOM

REMARKS:

*Info copy*

FROM:

ROOM NO.

BUILDING

EXTENSION

Declassified in Part - Sanitized Copy Approved for Release 2012/11/15 : JES FORM 36-8

(47)

CIA-RDP79B00873A002900020028-2

**CONFIDENTIAL**

791116

NPIC/TDS/D-657-67

26 January 1967

MEMORANDUM FOR: Deputy Assistant for Technical Development, NPIC

SUBJECT : Test and Evaluation of [ ] RIPP-2 Diazo Copy Machines

25X1

The Development Staff/TDS wrote a set of procurement specs (Attachment 1) for the production model of the [ ] RIPP Printer. All six production models purchased by IAD have been received and preliminary testing has been accomplished by IAD personnel with the assistance of [ ] from the Development Staff. Some of the preliminary test results are shown on the test form (Attachment 2). It appears to me, however, that this is a project which should be handled in its entirety by the Equipment Performance Staff, and it is requested that they be directed to carry out the test and evaluation on these machines to the required specifications. [ ] will stand ready to assist and guide them in any way necessary. Discussions have been held with [ ] of OSS/IAD, which indicate that testing of these machines will necessarily have to be accomplished in the IAD spaces, since they are also undergoing operational suitability testing.

25X1

25X1

25X1

25X1

[ ]  
Chief, Development Staff, TDS

25X1

Attachments: (2)  
Procurement Specs  
Test Form

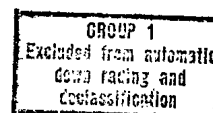
Distribution:  
Original - Addressee

1 - [ ]  
1 - [ ]  
1 - [ ]  
2 - DS/TDS files

25X1

NPIC/TDS/DS/[ ] (26 Jan 67)

25X1

**CONFIDENTIAL**

~~CONFIDENTIAL~~

11-1

## SPECIFICATIONS FOR RAPID INTERPRETATION PRINTER-PROCESSOR

### 1. General

- 1.1 This specification covers the requirements for a Rapid Interpretation Printer-Processor.
- 1.2 Printer-Processors are to be identical to the unit delivered under [ ] except for modifications listed in this specification.

25X1

### 2. Items Required

- 2.1 The following items are required by the Government:

- 2.1.1 Printer-Processor delivered under [ ]  
[ ] to be modified according to the specifications listed herein.
- 2.1.2 Five Printer-Processors to be fabricated according to the specifications listed herein.
- 2.1.3 If fuses are used, one extra fuse of each type to be provided for each Printer-Processor.
- 2.1.4 One full tank of ammonia and one full chamber of unused desiccant to be provided with each Printer-Processor.
- 2.1.5 Ten copies, Operations Instruction Manual.
- 2.1.6 Ten copies, Maintenance Manual.

25X1

25X1

### 3. Government Furnished Equipment

- 3.1 One Printer-Processor delivered under [ ]  
[ ] will be supplied for modification.

25X1

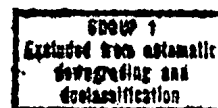
25X1

- 3.2 Five Richards GFL-940 MCE Light Tables.

### 4. Printer-Processor Modifications

- 4.1 The following modifications apply to all six Printer-Processors to be supplied.
  - 4.1.1 A resettable elapsed time-recording meter to record running time of the processor.
  - 4.1.2 An improved ammonia flow control to provide reliable ammonia regulation. All gauges positioned to permit front viewing.

~~CONFIDENTIAL~~



- 4.1.3 An improved water control system to provide positive control of the water level within the processing chamber. An indicator alerting the operator when the water level is below an acceptable minimum and an automatic valve to simultaneously turn off the ammonia.
- 4.1.4 An indicator alerting the operator when the desiccant has expended between 70 to 90 percent of its ability to remove ammonia from the plenum chamber gases.
- 4.1.5 A miniature light source in the printer light box to provide sufficient illumination for aligning the area to be copied with the copy material.
- 4.1.6 An exposure indicator lamp to indicate when an exposure is being made.
- 4.1.7 Storage container for the material located in a vertical position on the rear of the control panel.
- 4.1.8 All labels epoxy silk-screened.
- 4.1.9 Entrance port to the processor tapered and widened to permit easier insertion of the exposed material.
- 4.1.10 A resettable counter to indicate the number of exposures made.
- 4.1.11 A pressure gauge to display the pressure in the ammonia storage tank.
- 4.1.12 Location of the film notch for proper exposure on the glass exposure surface.
- 4.1.13 Improved drive mechanism within the processing chamber.
- 4.1.14 Reduced processor warm-up time and power requirements.
- 4.1.15 An extension of covering surrounding the ammonia bottle to prevent the bottle from being accidentally bumped.
- 4.1.16 Forced ammonia agitation within the processing chamber.
- 4.1.17 Modifications to latch on lid to prevent it from breaking exposure surface if lid is accidentally dropped.
- 4.1.18 All low pressure tubes and fittings containing ammonia must withstand at least 10 psig pressure without leakage.
- 4.1.19 The contractor may suggest other modifications that will improve the performance of the unit. The Contract Officer's technical representative must give approval to any changes not listed herein.

4.2 The following modifications apply to only one of the Printer-Processors.

4.2.1 One unit will be capable of using 220-240 volt, 50 cycle power supply. A standard 220-240 plug to be supplied by the contractor.

4.2.2 All other modifications listed herein will apply to this unit.

5. Test of Five Rapid Interpretation Printer-Processors

5.1 After delivery, the Government will test each unit before final acceptance.

5.2 The time-recording meter on each unit must be accurate to within  $\pm 5\%$  as measured during any twenty-four hour period. For the purposes of this test each unit's time meter will be used to measure the length of time each unit is in operation.

5.3 Each unit must operate a minimum of 200 hours before needing maintenance. If a unit fails or needs repeated adjustment, before the 200 hour period, its time of failure will be recorded and repairs will be made by the contractor. The unit will be started again and will attempt to operate 200 hours as measured from the time of the last repair. If, at the end of the 90 day period after receipt of equipment, any unit has not run for 200 hours or longer before needing maintenance, it will not be accepted by the Government. If the minimum at that time is less than 200 hours, an additional 90 day test period may be run at the discretion of the Government.

5.4 The six units must operate for an average of at least 400 hours before needing maintenance. This average will be taken 90 days after receipt of equipment. If the average at that time is less than 400 hours, an additional 90 day test period may be run at the discretion of the Government.

5.5 With each unit placed in a room of at least 2000 cubic feet, in which the air is completely replaced every 20 minutes, it must not cause a concentration of ammonia greater than 100 parts per million to exist during normal operation.

5.6 The minimum water level indicator light and automatic shut-off must be demonstrated satisfactorily at least four times.

5.7 The visual desiccant indicator must show color change at least once during test.

- 5.8 In all respects, each unit must perform at least as well as the unit delivered under previous contract before the modifications under paragraph 4 are completed. The resultant copies must be of at least the same quality as those produced from the previously delivered unit. Within any given single copy the unit must demonstrate a resolution in excess of 200 lines per millimeter, 1.80 maximum density and 0.05 minimum density.
- 5.9 At the discretion of the Government, failures of light bulbs, fuses, and similar components, where used within the specified ratings of the components, need not be considered as a failure for purposes of the acceptance test. A continuing failure of replaced components will be considered to be the fault of the unit's construction.
- 5.10 At the discretion of the Government, an occasional (less than one per 200 copies) jam of a copy in the processor need not be considered as a failure providing it can be removed and the unit put back in operation within fifteen minutes.

## 6. Maintenance

- 6.1 The contractor must provide 90 day period of free maintenance for each unit (commencing on the date each unit is accepted by the Government). The contractor must pay for wages, parts, travel and all other expenses. The contractor must provide such service within forty-eight hours after receipt of a verbal request by the Government.
- 6.2 The contractor must provide an additional nine month period of Government reimbursed maintenance for each unit (commencing on the date the maintenance period described in 6.1 is completed). The Government will bear all expenses for this service. The contractor must provide such service within ninety-six hours after receipt of a verbal request.

## 7. Delivery

- 7.1 Delivery to commence within fifteen weeks after receipt of five GFE Richards GFL 940 MCE Light Tables. At least one unit per week to be delivered thereafter.
- 7.2 The unit capable of 220-240 volt, 50 cycle operation to be the third unit delivered. This unit will be one of the five new units to be supplied. It must not be made from the unit delivered under previous contract.
- 7.3 The Government will furnish the previously delivered unit to the contractor for modification within five weeks after receipt of the first unit delivered under this contract. The contractor will modify it to conform the specifications listed under Paragraph 4.1 and return it within three weeks of its receipt.

Test Date

1/25/67

## A. RESOLUTION TESTS:

TARGET NUMBER	SEC. EXP.			EXPOSURE			
	25	30	35		* 25A	* 30A	* 35A
1	160	198	221		250	250+	278
2	160	221	198		198	177	250
3	139	177	111		250	250	250
4	177	198	177		250	250	250
5	111	88	88		139	139	125
6	139	198	160		250	221	221
7	100	177	250		221	221	250
8	221	177	125		139	169	221
9	177	177	160		198	221	221
—							
—							

## B. DENSITY OF RESOLUTION SAMPLES:

	TARGET	SAMPLES						
		25	30	35				
D-Max.	3.6+	2.04	2.01	2.04				
D-Min.	—	.06	.05	.05				

## C. GRAY SCALE TESTS:

	TARGET	25	30	SAMPLES	35	40	45	50
D-Max.	4+	2.02	2.04		2.07	2.04	2.03	2.04
D-Min.	.29	.3	.15		.1	.08	.07	.06
VISUAL No. Steps	<del>25</del> 14	8	9		9	9	9	10

## D. GENERAL REMARKS:

\* FIX SOFT SPOT IN CENTER  
Adjusts Station

25X1

S.N. 456321

08 201

Tested By:

R.E.B.

Figure 7. Displayed image of a computer generated resolution target read from mag. tape. This was the best image obtained during all the tests conducted.